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| EXAMINER |
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DICUS, TAMRA

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| ART UNIT | PAPER NUMBER |
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1774

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08/09/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |   |  |
|------------------------------|--------------------------------------|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/512,055 | <b>Applicant(s)</b><br>ISHERWOOD ET AL. |  |
|                              | <b>Examiner</b><br>Tamra L. Dicus    | <b>Art Unit</b><br>1774                 |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>01-21-05</u> . | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION*****Drawings***

The drawings are objected to under 37 CFR 1.83(a) because they fail to show The reflection enhancing layer may be metal, as shown in FIGS. 28 to 31, or an HRI layer, as shown in FIGS. 32 to 34 as described in the specification (see Examples 9-10 of the instant specification describing the aforementioned elements, but not including the reference numbers of the reflection enhancing layer or the HRI layer). Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the embossing layer between the transparent magnetic layer and HRI layer (per instant claim 19) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 5 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The metal layer as described in claim 10 appears critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). Claims 1 and 5 have indicia formed from opaque and non-opaque regions, but do not claim the necessary metal layer as described in claim 10 that forms said regions (see also Example 1, instant specification).

Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention

The overall structure of the claims are unclear. Claims 1 and 5 recite a “polymer carrier layer bearing indicia formed from a plurality” of regions. It is not clear if the indicia is formed from a plurality of regions or a the carrier. Additionally, the language “formed from” should be “comprised” to be inconsistent with patent terminology. The same rationale applies to “containing” in line 4 of claim 1, lines 2 and 3 of claim 5, “provided by” and “forming” in claim 10, and claim 12.

Claim 1 additionally claims “particles of a flake” nickel material which is unclear to what form the material is in, particle or flake, or a mixture or blend of some sort. Further, the language “further comprising” should be used. Further, to claim 1 “highly” is a relative term, rendering the claim indefinite. The term “highly” is not defined by the claim, the specification

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does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claims 3-4 are not clear because the carrier layer as recited in claim 1 bears indicia (thus being on the carrier surface), thus a magnetic layer cannot lie between the carrier and indicia because the indicia is already on the carrier.

The term "soft" in claim 5 is a relative term which renders the claim indefinite. The term "soft" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

The high refractive index layer of instant claim 9 is not recited next to a layer, thus it is not clear what the overall structure is of this claim.

Regarding claims 13-15, it is not clear what the structure is because as written it is uncertain if there is any further indicia in addition to what is already recited in claim 1 because "printed indicia" in line 3 of claim 13 is redundant because indicia is inherently printed and it is not clear which indicia is "the printed indicia" in claims 14-15.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re*

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*Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-22 of copending Application No.

10/511,721 in view of 6,808,806 to Phillips et al.

This is a provisional obviousness-type double patenting rejection.

Claims 1-22 of this application conflict with claims 1-22 of Application No. 10/511,721. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

Claims 1-22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 of Copending Application, Serial No. 10/511,721. Although the conflicting claims are not identical, they are not patentably distinct from each other because the difference between the instant claims of '055 and the claims of '721 are the magnetic particles being hard and/or soft Ni ones, the inherent properties of the particles in '051 (coercivity or remanence), and the amount of the particles in percentage by weight in '055, which is optimizable.

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Phillips teaches a security comprising magnetic particles are hard and soft, where the soft ones have the coercivity and detectable remanence properties as claimed (9:50-10:45) and the hard ones have ferromagnetic and long lasting remanence properties. See Table 1 and Example 1 to amount of pigment in the binder vehicle (1:4, equivalent to 20 wt% magnetic particles, falling with Applicant's range '055 instant claim 1). These particles have an overall color changing, three-dimensional effect in securities.

It would have been obvious to one having ordinary skill in the art to have modified either of the copending inventions to include the particles as claimed and further over Phillips because Phillips teaches hard or soft magnetic particles are suitable for yielding a color changing and three-dimensional effect (9:50-10:68). The weight percentage between 1 and 50% ('055) are optimizable since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. See Example 1 amounts. It is submitted the optimal and/or claimed values of the respective material would have been obvious to the skilled artisan at the time the invention is made since it has long being held that such discovery, such as an optimum value of the respective result effective variable involves only routine skill in the art. *In re boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Further the particles are distributed in a concentration at which the magnetic layer remains transparent (per instant claims) and the same limitation is in '721 stating that weight percentage is between 1 and 50 wt %. The instant claims are more narrow than '721, but in view of Phillips the magnetic material is exchangeable used for the same three dimensional effect.

***Claim Rejections - 35 USC § 103***

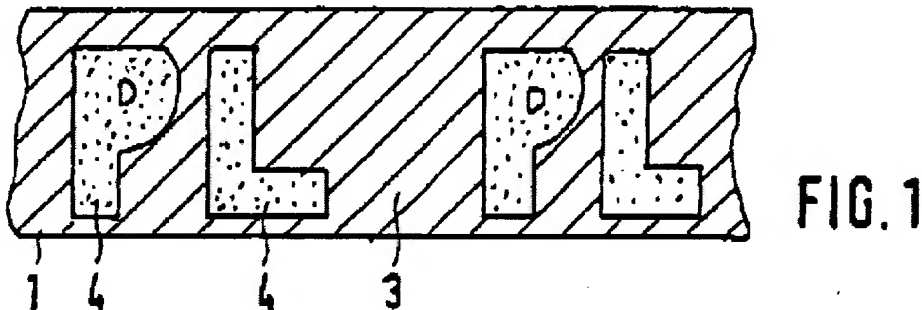
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

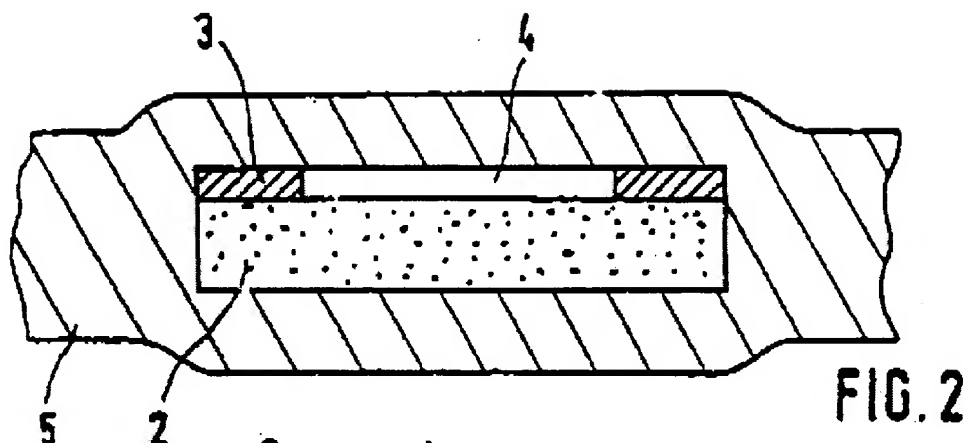
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-6, 9-16 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6474695 to Schneider et al. in view of US 6,808,806 to Phillips et al.

For prior art purposes the following rejection is applied:

Schneider et al. teaches a security document or thread embedded in paper (3:45-68), shown in Fig. 1, an inherently transparent substrate of polyester, 1 FIG. 1, and 2, FIG. 2 and associated text, on paper support 5, FIGS. 1 and 2, including metal 3, FIGS. 1 and 2, and metal free areas of indicia 4, FIGS. 1 and 2. To instant claims 12 and 16-17, see 3:20-41, printing luminescent colors in mixed or overlapping fashion and embossed holograms in the carrier or another layer (the print and holograms are equivalent to optically variable indicia and device as claimed). Instant claims 1-2, 5, 10-13, 16-17, and 21-22 are addressed.





Schneider does not teach a transparent magnetic layer comprising flake particles as claimed per instant claim 1, 3-5, 9, 11, and 13-16 or the transparent polymer of instant claim 6.

Phillips teaches a transparent magnetizable coating layer (1:5-11, Abstract) in liquid form deposited generally on substrate surfaces (5:57, per instant claims 1, 3-5) where a specific substrate is a metal surface (6:60-62) or a transparent polymer carrier (7:22-40, per instant claim 6), where a reflective magnetic flake (RMF) 100 (Fig. 2 and associated text) is in the magnetizable pigment coating (see, 26, FIG. 1 and associated text, 7:40-51, 7:55-62) and is comprised of magnetics such as Ni and hard ones (9:54-10:45), wherein one of the properties of the hard magnets in the magnetizable coating is transparency because it is deposited as an absorber in a thickness that does not remain opaque (equivalent to a clear transparent magnetic layer remaining transparent and clear, see 10:1-10) overall yielding a three-dimensional effect (col. 6). See 9:50-10:45 to the hard magnetic materials of a size and distributed in a concentration (7:55-65) that have ferromagnetic and long lasting remanence properties. See Table 1 and Example 1 to amount of pigment in the binder vehicle (1:4, equivalent to 20 wt%

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magnetic particles, falling with Applicant's range '055 instant claim 1). These particles have an overall color changing, three-dimensional effect in securities. Phillips also teaches covert magnetic signatures in a printed magnetic image (equivalent to indicia, 6:45-50). The image is on the carrier is between a magnetizable coating and substrate (24 above and on 22, FIG. 1 and preprinted on the carrier – 7:30-35, per instant claim 4). The RMF is further surrounded by high refractive index dielectric materials (11:14-40, shown in FIG. 3, per instant claim 9). To instant claims 13-15, Fig. 4 (8 is under 4) and Example 5 (ink is printed on a film and metal and ethyl alcohol treatment is introduced) of Schneider teach indicia overlying and within metallic and demetallized regions. See also Table 1. Instant Claims 1, 3- 5, 9, 11, and 13-16 are addressed.

It would have been obvious to one having ordinary skill in the art to have modified the security of Schneider to incorporate the transparent polymer layer and magnetizable coating comprising pigment flakes in the orders as claimed and as taught by Phillips because Phillips teaches a three-dimensional effect, very low coercive fields, and remanence properties to any substrate to provide security features thereby producing security substrates as cited above, the transparent polymer layer is used to carry the indicia and magnetizable layer as cite above.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6474695 to Schneider et al. in view of US 6,808,806 to Phillips et al. and further in view of US 5,997,849 to Small et al.

For prior art purposes the following rejection is applied:

The combination is relied upon above.

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The combination does not teach a varnish as per instant claim 2, but Phillips does generally teach the magnetic image comprising the flakes can be dispersed in an ink vehicle, where such dispersion does not interfering with the magnetism of magnetic pigments (7:20-55).

Small teaches an ink for use in security documents (Abstract, patented claim 16) and explains it is known that ink vehicles have a main ingredient, called the binder, which can be a resin, lacquer or varnish or some other polymer (2:15-25) and teaches at 9:25-40 pigments in flake form mixed with a varnish which exhibits high tack and viscosity.

It would have been obvious to one having ordinary skill in the art to have modified the been obvious to have modified the combination to incorporate or use a transparent ink or varnish vehicle to produce a clear magnetic layer as claimed because Phillips suggests a general suitable vehicle for the flake pigment and Small teaches a varnish vehicle in order to bind the pigments and to yield a high tack and viscosity as cited above.

Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6474695 to Schneider et al. in view of US 6,808,806 to Phillips et al. and further in view of EP 319157A to Melling et al.

The combination is relied upon above.

The combination does not teach an adhesive layer as per instant claims 7-8.

Melling teaches a security with a layer of metal on one or both sides of a substrate, there being present on one side of the device a continuous metal path along its length, and metal-free (non opaque) portions providing a repeating pattern, design, indicia or the like being adhered by

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an adhesive via laminate of said security to polymer webs or sheets (abstract, page 8, lines 33-35).

It would have been obvious to one having ordinary skill in the art to have modified the combination to include an adhesive layer as claimed because Melling teaches it is conventional to apply adhesive to laminate a device or thread to produce a final laminate. Further it was obvious to include adhesive overlying indicia because the indicia is on the surface of a carrier and in combination with Melling's adhesive layer, produces the structured order of instant claim 8.

Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6474695 to Schneider et al. in view of US 6,808,806 to Phillips et al. and further in view of US 6294241 to Kaule et al.

The combination is relied upon above.

The combination does not teach a lacquer as per instant claims 17-20, while Schneider teaches an embossed hologram as aforementioned.

Kaule teaches a security having embossed holographic structures in a lacquer on a plastic layer (Abstract) because the lacquer hologram adheres well and provides a cost-effective and simple way to provide a security document with an embossed hologram (2:35-68).

It would have been obvious to one having ordinary skill in the art to have modified the combination to provide a lacquer on a polymer layer, be it a carrier or magnetic layer as claimed because Kaule teaches the advantages of a cost-effective and simple way to provide a security document with an embossed hologram (Abstract, 2:35-68, col. 4 of Kaule). Thus, in

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combination, the ordered structure as instantly claimed would be obvious to provide because the lacquer adheres to polymeric materials.

Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6474695 to Schneider et al. in view of US 6,808,806 to Phillips et al. and further in view of US 6726813 to Kaule et al.

The combination is relied upon above.

The combination does not teach a lacquer as per instant claims 17-20, while Schneider teaches an embossed hologram as aforementioned.

Kaule teaches a security having embossed holographic structures in a lacquer on a plastic layer (2:20-30, 2:55-68, 3:1-10) having an auxiliary layer 53, FIG. 4b under metal 54 and adjacent metal free area 56 on embossed plastic 52 all shown in FIG. 4b as a partial metallization by etching which structure aids in protection against falsification in a security document (1:1-25).

It would have been obvious to one having ordinary skill in the art to have modified the combination to provide a lacquer on a polymer layer, be it a carrier or magnetic layer as claimed because Kaule teaches the advantages of protection against falsification in a security document (1:1-25, 2:20-30, 2:55-68, 3:1-10 of Kaule). Thus, in combination, the ordered structure as instantly claimed would be obvious to provide.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is 571-272-1519. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Tamra L. Dicus  
Examiner  
Art Unit 1774

August 2, 2007



MILTON I. CANO  
SUPERVISORY PATENT EXAMINER